

REMARKS/ARGUMENTS

Claims 2-8, 10-16, 18-21 remain in the application. No claims have been amended.

Claims 2-8, 10-16, 18-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,370,620 to Wu et al. ("Wu") in view of U.S. Patent No. 6,389,462 to Cohen et al. ("Cohen").

Claim Rejections under 35 U.S.C. § 103

Claims 2-8, 10-16, 18-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wu in view of Cohen.

According to an embodiment of the present invention, a network processor implements a Cache Array Routing Protocol (CARP) while functioning transparently to a client computer. In this embodiment, the network processor intercepts URL requests from a client computer, determines the proper cache in the cache array that holds the URL corresponding to the URL request, and transmits the request directly into the determined cache.

Wu's disclosed method of responding to URL requests is implemented either on the client browser or a cache server. (see Col. 1, lines 49-50, Col. 4, lines 44-47, Col. 6, lines 43-46, Fig. 5, Fig. 6). Unlike operating on a cache server, embodiments of the present invention operate independently and outside of the cache array, and do not function as a proxy server itself. For example, the network processor, once handling the URL request, makes the request directly to the proper cache in the cache array, greatly reducing inter-cache traffic. The network processor is transparent to the client computer,

and no change in the cache servers would be necessary. Wu's embodiment would require knowledge by all cache servers in the cache array of the proxy server or router making the request. In contrast, the cache servers, in this embodiment, would perceive the request as coming directly from the client computer and would not require any knowledge of the network processor.

Wu's implementation in a client browser requires the client browser to directly address the cache servers. (see Col. 5, lines 50-58). However, this requires the client browser to have knowledge of all the cache servers in the cache array. It also requires the client browser to receive signals to redirect to the proper cache server, thus increasing client/server traffic. (see Col. 5, lines 61-67, Col. 6, lines 14-19). The network processor, in one embodiment, operates independently of the client browser's knowledge and requires no reprogramming of the client browser. Such reprogramming would be unfeasible for most client systems. It also does not require the client to redirect itself, as the network processor will interject the request for the client, without its knowledge.

Wu also teaches away from redirecting the request directly to the proper cache server. Wu's embodiment actually allows for the initial device receiving the request to process it locally, rather than forwarding it to the proper server. (see Col. 6, lines 8-10, Col. 6, lines 44-46). Such an embodiment requires controlling the caches of non-assigned URL requests on the downstream device, in order to maintain the efficiency of the CARP protocol. Embodiments of the present invention do not require controlling the caches of the network processor, as the network processor does not function as a cache server.

Wu does not indicate that its method of implementing CARP could operate outside of the cache array. In fact its proxy server module is contained within the cache array. (see Fig. 1). Additionally, Wu does not indicate that its implementation would be transparent to the client computer. Rather, if the client implements the hash function, it must have knowledge of the cache servers in the cache array to directly address them. (see Col. 5, lines 50-58).

Further Cohen does not disclose determining and redirecting executed by a network processor that is transparent to said client computer. Cohen discloses:

It is therefore more desirable from an ISP's standpoint with respect to latency and minimizing traffic onto and off of the network to transparently intercept a client's web request and send it to one of its operative proxy caches to determine whether a copy of the requested object is stored there.

(Cohen, Col. 1, Lines 44-48).

Nowhere in Cohen is transparent determining and redirecting attributed to a network processor.

Since features of each of the pending claims are neither taught nor suggested by the Wu reference and the Cohen reference, reconsideration and withdraw of the rejection of claims 2-8, 10-16, 18-28, under 35 U.S.C. § 103(a), is respectfully requested.

For all the above reasons, the Applicant respectfully submits that this application is in condition for allowance. A Notice of Allowance is earnestly solicited.

The Examiner is invited to contact the undersigned at (202) 220-4255 to discuss any matter concerning this application. The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 11-0600.

Respectfully submitted,
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